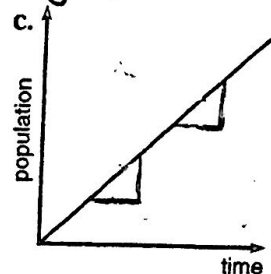
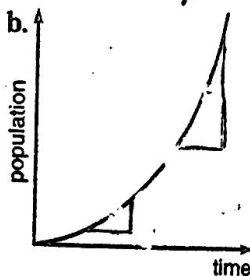
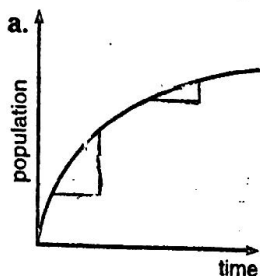


1) The populations of Centerville, Denterville, and Fenterville are increasing. In each town at the end of every year, there are more people than there were at the beginning of the year.

- In Centerville, the population is increasing at a constant rate. Every year, the population increases by the same amount.
- In Denterville, the rate of increase is increasing. Every year, more and more people are moving to Denterville.
- In Fenterville, the rate of increase is decreasing. Every year, the population is increasing by a smaller and smaller amount.

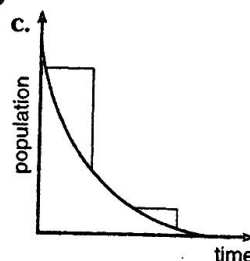
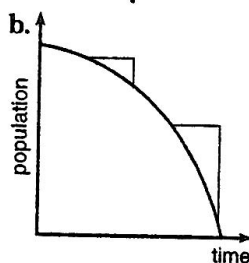
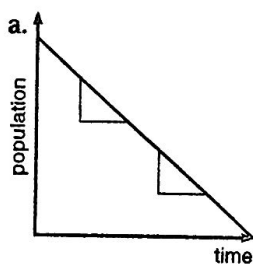
Below are three graphs, each of which shows population increasing as a function of time. *Match each city to its graph.*



2) The populations of Henterville, Kenterville, and Lenterville are decreasing. In each town at the end of every year, there are fewer people than there were at the beginning of the year.

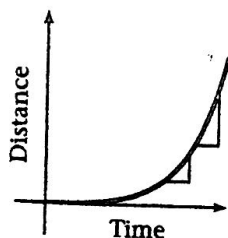
- In Henterville, the population is decreasing at a constant rate. Every year, the population decreases by the same amount.
- In Kenterville, the rate of change is increasing. Every year, although the population continues to decrease, fewer and fewer people leave.
- In Lenterville, the rate of change is decreasing. Every year, the population is decreasing by a greater and greater amount.

Below are three graphs, each of which shows population decreasing as a function of time. *Match the city to its graph.*

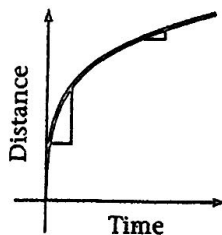


3) Janet, Gail, and Susan all walked away from the railroad station. Janet walked at a steady pace. Gail realized she was late and sped up as she walked. Susan slowed down to look around. Decide which graph shows each girl's walk.

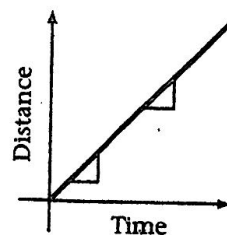
Graph A



Graph B



Graph C



Why Did the Skeleton Visit a Butcher Shop?

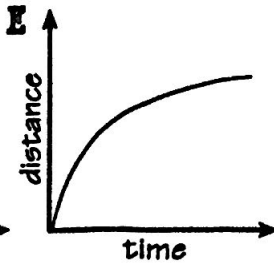
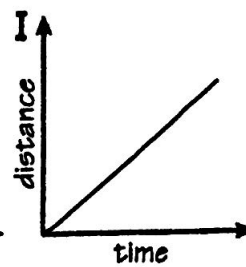
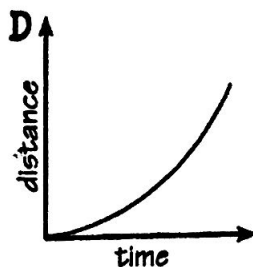
Choose the best graph for the situation. Write the letter of your choice in each box with the exercise number.

Suppose you are riding a bike.

Let x = time; y = distance traveled.

Which graph shows:

1. Speeding up (acceleration)?
2. Slowing down (deceleration)?
3. Constant speed?

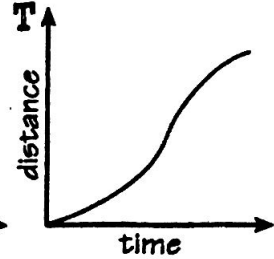
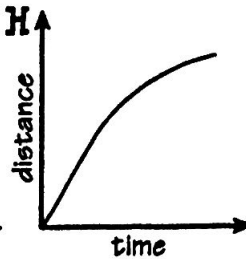
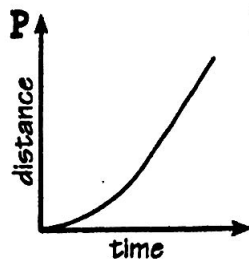


Suppose you are walking to school.

Let x = time; y = distance traveled.

Which graph shows:

4. Speeding up, then slowing down?
5. Speeding up, then constant speed?
6. Constant speed, then slowing down?

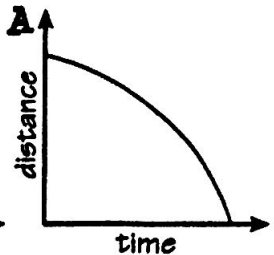
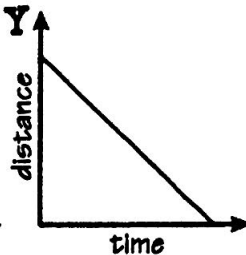
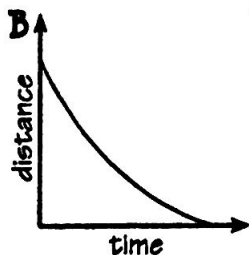


Suppose you are running home.

Let x = time; y = distance from home.

Which graph shows:

7. Constant speed?
8. Speeding up as you get closer?
9. Slowing down as you get closer?

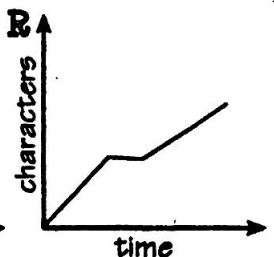
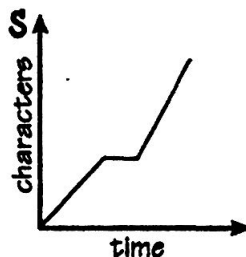


Suppose you are writing a story on a computer.

Let x = time; y = number of characters typed.

Which graph shows:

10. Constant speed, then stop, then a faster constant speed?
11. Constant speed, then stop, then a slower constant speed?

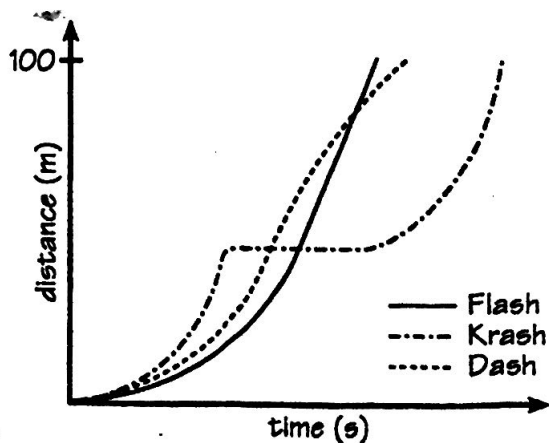


4	6	2	7	6	8	1	10	5	8	11	2	11	3	9	10
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The Hurdles Race

This sketch graph shows what happened when three athletes, Flash, Krash, and Dash, competed in a 100-meter hurdles race.

- a. How do you know that all three athletes were accelerating at the beginning of the race?
- b. Which athlete slowed down near the end of the race? How do you know?
- c. Which athlete maintained a constant speed during the last half of the race? How do you know?
- d. Why might part of the graph for Krash be horizontal?
- e. Who won the race? Just for Fun: Try calling the race.



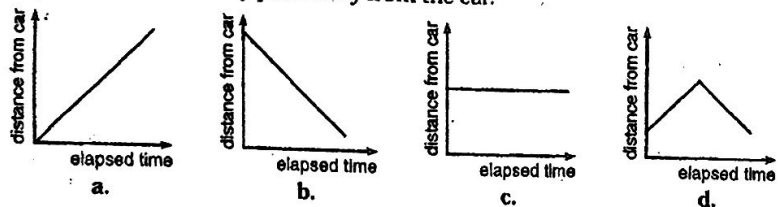
Block

Date

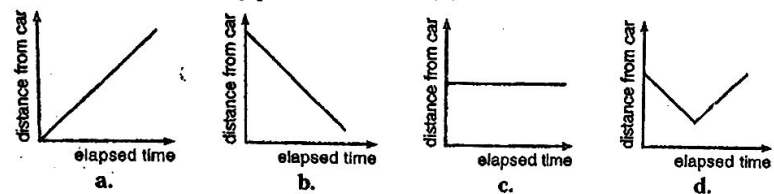
Name

For each set of graphs, choose one that best matches the situation. Write a sentence explaining why you chose the particular graph you did.

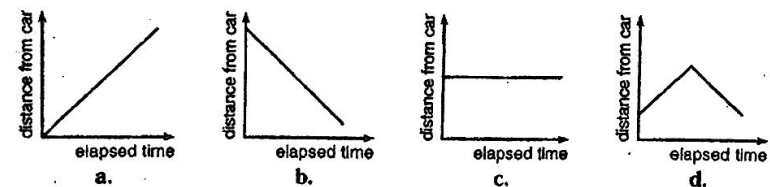
Hugo walked at a steady pace away from the car.



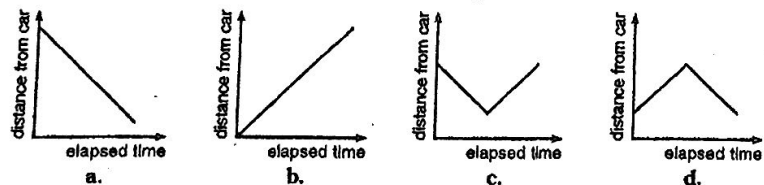
Mary walked at a steady pace toward the car.



Chris stood at a distance from the car.

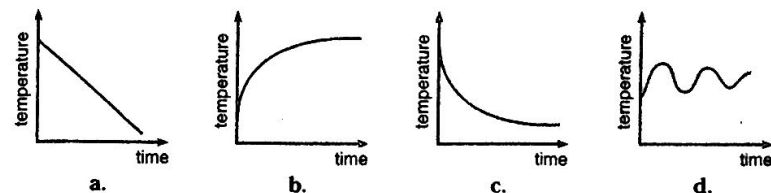


Nancy first walked toward the car and then away from it.

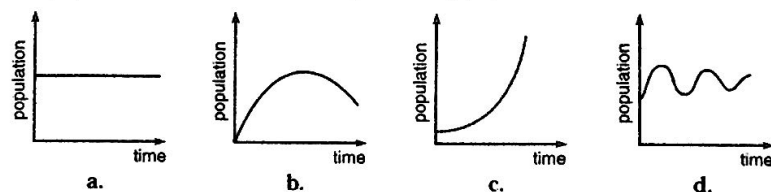


For each set of graphs, choose the one that best matches the situation. Write a sentence explaining your choice.

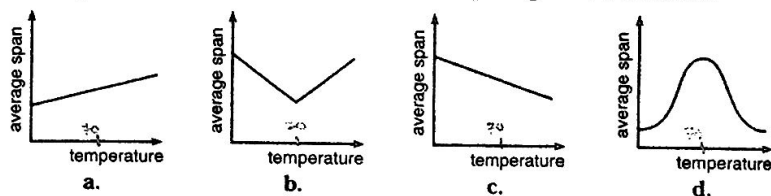
1. After death, a body cools to the temperature of the room.



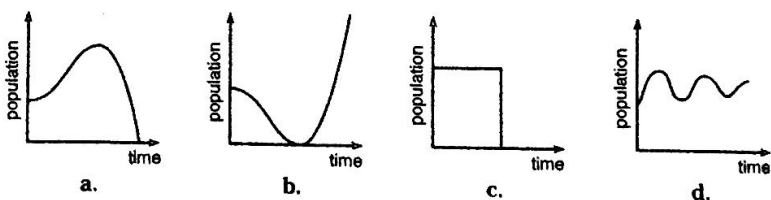
2. The population has been increasing over the years.



3. The ideal temperature for a classroom is around 70° F. When the temperature rises above 70° F, the average student's attention span decreases. Similarly, if the temperature falls below 70° F, the attention span again will decrease.



4. In the 1930s in Arizona, the deer population first increased and then decreased until deer became extinct.



Name: _____

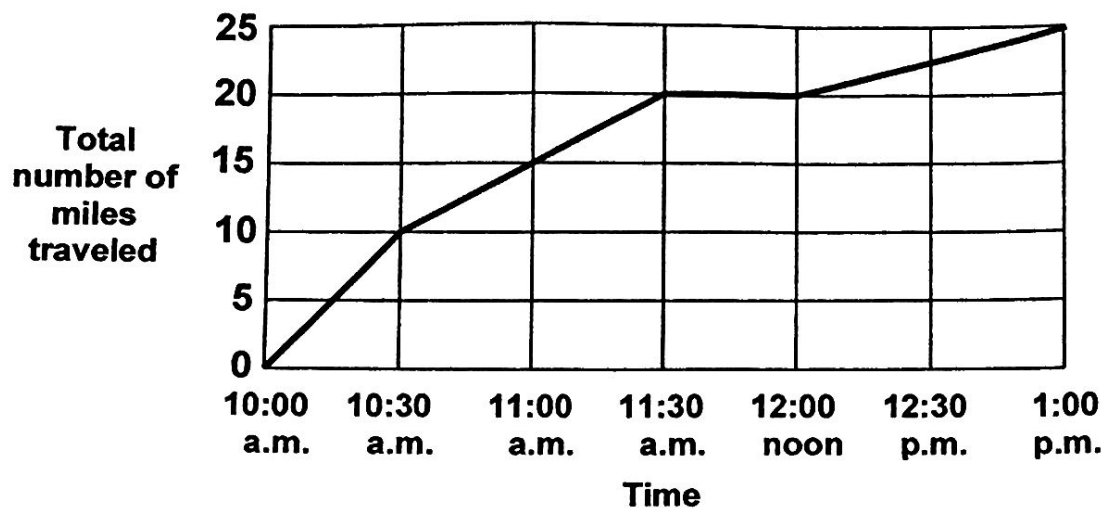
Date: _____

Block: _____

Bike Ride

Selina and Jack went for a bike ride today.

They made this graph of their bike ride.



1. How many miles did they travel in all? _____ miles
2. How long did their bike ride take? _____ hours
3. When were they cycling the fastest? _____
Explain your answer.

4. What does the graph show that they did between 11:30 a.m. and 12 noon?
Explain your answer.

5. What was their speed between 12 noon and 1 p.m.? _____ miles an hour